[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2016-5597; Directorate Identifier 2016-NM-009-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 737-400 series airplanes. This proposed AD was prompted by reports of cracks in the upper chord of the overwing stub beams at body station (STA) 578 emanating from the rivet location common to the crease beam inner chord and the overwing stub beam upper chord. This proposed AD would require repetitive inspections for cracking, and related investigative and corrective actions if necessary. Replacement of the overwing stub beam would terminate the repetitive inspections for cracking at the replacement location only, and post-replacement inspections would be required if the replacement was done. We are proposing this AD to detect and correct cracking in the upper chord of the overwing stub beam caused by high flight cycle fatigue stresses from both pressurization and maneuver loads. Cracking of the overwing stub beam could adversely affect the fuselage structural integrity and result in possible decompression of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-5597.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-5597; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Wade Sullivan, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601

Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6430; fax: 425-917-6590; email: wade.sullivan@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2016-5597; Directorate Identifier 2016-NM-009-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received ten reports from four operators of cracks in the upper chord of the overwing stub beams at body STA 578 emanating from the rivet location common to the crease beam inner chord and the overwing stub beam upper chord on The Boeing Company Model 737-400 series airplanes. The earliest reported crack in an overwing stub beam upper chord occurred on an airplane with 31,843 total flight cycles. Seven airplanes had a severed overwing stub beam upper chord on either the left or right side, and two airplanes had severed overwing stub beam upper chords on the left and right sides. Cracks in the upper chord of the overwing stub beams, if not corrected, could result in high flight cycle fatigue stresses from both pressurization and maneuver loads, which can cause cracking in the upper chord of the overwing stub beam at STA 559, STA 578,

and STA 601. Cracking of the overwing stub beam could adversely affect the fuselage structural integrity and result in possible decompression of the airplane.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015. The service information describes procedures for doing a surface high frequency eddy current inspection for cracking in the overwing stub beam upper chord at STA 559, STA 578, and STA 601, and repairs and replacement. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between this Proposed AD and the Service Information." For information on the procedures and compliance times, see this service information at http://www.regulations.gov by searching for and locating Docket No. FAA-2016-5597.

The phrase "related investigative actions" is used in this proposed AD. "Related investigative actions" are follow-on actions that (1) are related to the primary action, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase "corrective actions" is used in this proposed AD. "Corrective actions" correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between this Proposed AD and the Service Information

Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

• In accordance with a method that we approve; or

• Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 93 airplanes of U.S. registry. We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	24 work-hours X $85 per hour = $2,040 per inspection cycle	$0	$2,040 per inspection cycle	$189,720 per inspection cycle

We estimate the following costs to do any necessary inspections/replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these inspections/replacements:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Related investigative inspection	9 work-hours X $85 per hour = $765 per side	$0	$765 per side
STA 578 Replacement	41 work-hours X $85 per hour = $3,485 per side	$41,500 per side	$44,985 per side

Action	Labor cost	Parts cost	Cost per product
STA 578 Post-replacement inspection	1 work-hour X $85 per hour = $85 per side	$0	$85 per side

We have received no definitive data that would enable us to provide cost estimates for certain on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2016-5597; Directorate Identifier 2016-NM-009-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all the Boeing Company Model 737-400 series airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Unsafe Condition

This AD was prompted by reports of cracks in the upper chord of the overwing stub beams at body station (STA) 578 emanating from the rivet location common to the crease beam inner chord and the overwing stub beam upper chord. We are issuing this AD to detect and correct cracking in the upper chord of the overwing stub beam caused by high flight cycle fatigue stresses from both pressurization and maneuver loads. Cracking of the overwing stub beam could adversely affect the fuselage structural integrity and result in possible decompression of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Inspections, Related Investigative Actions, and Corrective Actions

At the applicable time specified in table 1 in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, except as required by paragraphs (j)(1) and (j)(2) of this AD: Do a surface high frequency eddy current (HFEC) inspection for any cracking in the overwing stub beam upper chord at STA 559, STA 578, and STA 601; and do all applicable related investigative and corrective actions; in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, except as specified in paragraph (j)(3) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the HFEC inspection thereafter at the applicable intervals specified Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015.

Note 1 to paragraph (g) of this AD: Deviation from the actions specified in Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, may affect compliance with the fuel tank ignition prevention requirements specified in Critical Design Configuration Control Limitation 28-AWL-11 of Document D6-38278-CMR.

(h) Terminating Action

Replacement of the overwing stub beam in accordance with Part 4 of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, terminates the repetitive inspections required by paragraph (g) of this AD at the STA 578 replacement location only. The post-replacement inspections required by paragraph (i) of this AD are still required at the STA 578 replacement location.

(i) Post-Replacement Inspections and Corrective Action

For airplanes on which an overwing stub beam has been replaced at STA 578: At the applicable time specified in table 2 in paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015: Do a surface HFEC inspection for any cracking in the overwing stub beam upper chord at STA 578, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015. Repeat the HFEC inspection thereafter at the applicable intervals specified Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015. If any cracking is found during any inspection required by this paragraph, before further flight, repair the cracking using a method approved in accordance with the procedures specified in paragraph (j)(3) of this AD.

(j) Exceptions to Service Information

(1) Where Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, specifies a compliance time after the "original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) The Condition column of paragraph 1.E., "Compliance," of Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, refers to airplanes with specified total flight cycles "at the original issue date of this service bulletin." This AD, however, applies to the airplanes with the specified total flight cycles as of the effective date of this AD.

(3) If any cracking is found during any inspection required by this AD, and Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015, specifies to contact Boeing for appropriate action: Before further flight, repair the cracking or replace the stub beam, using a method approved in accordance with the procedures specified in paragraph (l) of this AD.

(k) No Economic Inspection Required

This AD does not require the "Recommended Economic Inspection" specified in paragraph 3.B.3. of the Accomplishment Instructions of Boeing Alert Service Bulletin 737-53A1347, dated December 9, 2015.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (m)(1) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair, modification, or alteration required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. To be approved, the repair method, modification deviation, or alteration deviation must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(4) Except as required by paragraph (j)(3) of this AD: For service information that contains steps that are labeled as Required for Compliance (RC), the provisions of paragraphs (l)(4)(i) and (l)(4)(ii) of this AD apply.

(i) The steps labeled as RC, including substeps under an RC step and any figures identified in an RC step, must be done to comply with the AD. An AMOC is required for any deviations to RC steps, including substeps and identified figures.

(ii) Steps not labeled as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the RC steps, including substeps and identified figures, can still be done as specified, and the airplane can be put back in an airworthy condition.

(m) Related Information

(1) For more information about this AD, contact Wade Sullivan, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office (ACO), 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6430; fax: 425-917-6590; email: wade.sullivan@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet https://www.myboeingfleet.com. You may view this referenced service information at the

FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on April 15, 2016.

Victor Wicklund,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.
[FR Doc. 2016-09643 Filed: 4/27/2016 8:45 am; Publication Date: 4/28/2016]